

**REMARKS**

Claims 1, 2 and 5-26 are pending in this application. By this Amendment, claims 1-2, 10, 14, 16, 19-20 and 24-25 are amended and claim 4 is canceled without prejudice or disclaimer. Various amendments are made for clarity and are unrelated to issues of patentability.

The Office Action rejects claims 1-4 and 7-25 under 35 U.S.C. §103(a) over U.S. Patent 5,319,707 to Wasilewski et al. (hereafter Wasilewski) in view of U.S. Patent 5,128,665 to Deluca et al. (hereafter Deluca). The rejection is respectfully traversed with respect to the pending claims.

Independent claim 1 recites processing a present data frame to be transmitted, the present data frame comprising: a header subframe containing frame mapping information of data to be transmitted to a plurality of terminals, and data subframes containing data multiplexed therein, and to be transmitted to the plurality of terminals at a present time in correspondence to frame mapping information transmitted in a frame in advance of the header subframe of the present frame. Independent claim 1 also recites that the frame mapping information transmitted in the frame in advance of the header subframe of the present frame includes subframe numbers arranged in a specific order to correspond to positions of the corresponding multiplexed subframes in the present frame, wherein the frame mapping information transmitted in the frame in advance of the present frame includes the subframe numbers transmitted 'n' frames before the present frame in

succession, and the multiplexed data subframes are positioned in the present frame according to an order of transmission of the subframe numbers that is transmitted in the frame in advance of the present frame.

The applied references do not teach or suggest at least these features of independent claim 1, which includes features from previous dependent claim 4. More specifically, the Office Action (on page 3) states that Wasilewski fails to disclose subframes arranged in a specific order to correspond to positions of corresponding multiplex subframes. The Office Action then relies on Deluca's FIG. 1 as showing address signal numbers 1-L arranged in a specific order to correspond to positions of the corresponding packets 1-L in the message. However, Deluca does not relate to a specific order corresponding to positions of corresponding subframes where the specific order is provided in a previously transmitted frame. Deluca relates to a synchronization word 100 that includes an address field 104 and data fields 106 and 108. The alleged specific order of Deluca provided in the address field 104 is provided within the same message as the first data field 106 and second data field 108. Therefore, Deluca does not relate to frame mapping information transmitted in a frame in advance of the header subframe of the present frame includes subframe numbers arranged in a specific order to correspond to positions of the corresponding multiplexed subframes in the present frame. Wasilewski does not teach or suggest these missing features of independent claim 1.

Furthermore, when discussing dependent claim 4, the Office Action cites Wasilewski's FIG. 14 and col. 24, lines 27-42. However, these features do not relate to the

multiplexed data subframes are positioned in the present frame according to an order of transmission of the subframe numbers that is transmitted in the frame in advance of the present frame. Deluca does not teach or suggest these missing features.

Furthermore, applicant respectfully submits that the combination of Wasilewski and Deluca is improper and is based on impermissible hindsight. Wasilewski relates to multiplexing digital programs for transmission via satellite to a plurality of remote locations. The plurality of programs include radio, audio, teletext, closed captioning and other data. This data is communicated via programmers 12 to cable head ends. In contrast, Deluca relates to a paging system from a plurality of selective call receivers. These are different types of use that are not simply combinable as appears to be alleged in the Office Action. There is no suggestion to combine paging calls with digital programs as alleged in the Office Action. Furthermore, there is no suggestion of how the paging message shown in FIG. 1 of Deluca may be combined with Wasilewski's FIG. 15 and FIG. 19, which are cited in the Office Action. Applicant respectfully submits that the only motivation to provide this combination is provided in applicant's own specification. Therefore, the Office Action relies on impermissible hindsight in order to make the combination. Applicant respectfully submits that the combination is improper and should be withdrawn.

For at least the reasons set forth above, Wasilewski and Deluca do not teach or suggest all the features of independent claim 1. Thus, independent claim 1 defines patentable subject matter.

Independent claim 16 recites (a) processing data to be transmitted at a present time to form a present frame having subframes, (b) multiplexing the formed subframes of the present frame according to subframe mapping information that is transmitted in a frame in advance of the present frame, and (c) transmitting the multiplexed subframes of the present frame together with subframe mapping information of the subframes to be transmitted after transmitting the present frame, wherein the subframe mapping information includes subframe numbers in a specific order to correspond to positions of formed subframes to be transmitted after the present frame in a subsequent frame.

For at least similar reasons as set forth above, Wasilewski and Deluca do not teach or suggest at least these features of independent claim 16. More specifically, Wasilewski and Deluca do not teach or suggest that the subframe mapping information includes subframe numbers in a specific order to correspond to positions of formed subframes to be transmitted after the present frame in a subsequent frame. Thus, independent claim 16 defines patentable subject matter.

Independent claim 24 recites processing data to be transmitted in a present frame, the data including: a header subframe containing a plurality of subframe numbers relating to data for a plurality of terminals, and a plurality of data subframes each containing data to be transmitted to the plurality of terminals, wherein an order of the plurality of data subframes in the present frame identifies an order of subframe numbers that is transmitted in a previous frame prior to transmission of the present frame.

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For at least similar reasons as set forth above, Wasilewski and Deluca do not teach or suggest at least these features of independent claim 24. More specifically, Wasilewski and Deluca do not teach or suggest that an order of the plurality of data subframes in the present frame identifies an order of subframe numbers that is transmitted in a previous frame prior to transmission of the present frame. Thus, independent claim 24 defines patentable subject matter.

For at least the reasons set forth above, each of independent claims 1, 16 and 24 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason.

In addition, the dependent claims recite features that further and independently distinguish over the applied references.

### **CONCLUSION**

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1, 2 and 5-26 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

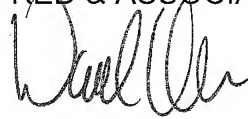
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concurrent and future replies, including extension of time fees, to Deposit Account 16-0607  
and please credit any excess fees to such deposit account.

Respectfully submitted,  
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